du Treil, Lundin & Rackley, Inc.
A Subsidiary of A.D. Ring, P.A.

TECHNICAL EXHIBIT
DTV FACILITY MODIFICATION
WLOX(TV) BILOXI, MISSISSIPPI

WLOX-TV on NTSC Channel 13 at Biloxi, Mississippi is requesting modification of the assigned DTV facilities. WLOX-TV is assigned DTV Channel 36 with a maximum effective radiated power of 742.1 kilowatts with an antenna height above average terrain of 408 meters. WLOX-TV seeks to increase the effective radiated power to 1,000 kilowatts, non-directional, and increase the antenna height above average terrain to 561 meters.

According to Appendix B, *DTV Table of Allotments*, contained in the Commission's Sixth Report and Order, *Advanced Television Systems and Their Impact upon the Existing Television Broadcast Service*, the proposed WLOX-TV DTV interference-free service area is 34,055 km^2 containing a population of 1,025,000 persons. By increasing the effective radiated power to 1,000 kilowatts and antenna height above average terrain to 561 meters, the approximate DTV interference-free service area increases to 44,620 km^2 containing 1,307,200 persons. This is an increase in population of 27%. The population figures are based on the 1990 U.S. Census of housing and population.

According to the Commission's minimum separation distance table in Section 73.623(d), WLOX-TV on DTV Channel 36 at Biloxi, Mississippi is short-spaced to NTSC station

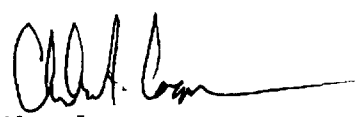
WHLT(TV) on Channel 22 at Hattiesburg, Mississippi. The required minimum separation distance from each station is less than 24.1 kilometers and greater than 96.6 kilometers. The actual separation distance is 76.9 kilometers. Therefore, the minimum short-spacing is 19.7 kilometers from the WLOX-TV DTV allotment to WHLT(TV). All other minimum separation distances are satisfied to other assignments and allotments. Therefore, an interference analysis has only been completed to WHLT(TV).

Using the procedure outline in OET Bulletin 69, the new interference to WHLT(TV) is determined. According to our calculations for the planed WLOX-TV DTV facility, the amount interference to WHLT(TV) occurs over approximately 74 square kilometers (km^2) which contains approximately 711 people. With the proposed DTV facility, the predicted interference decreases to approximately 50 km^2 with 78 people.

This decrease in both population and area of the predicted interference from the WLOX-TV DTV facility to station WHLT(TV) appears to be caused by the effect of the vertical plane radiation pattern from the WLOX-TV DTV facility. Pursuant to OET Bulletin 69, the interference calculations require the use of the vertical plane elevation pattern. As the WLOX-TV radiation center is being increased substantially, more locations close to the WLOX-TV tower, which are more susceptible to interference to WHLT(TV), are within the "minor-lobes" of the WLOX-TV vertical pattern and consequently have a lower predicted field strength and desired-to-undesired ratio from WLOX-TV. Therefore, by increasing the height of the WLOX-TV transmitting antenna radiation center, the amount of

du Treil, Lundin & Rackley, Inc.
A Subsidiary of A.D. Ring, P.A.

predicted interference, according to calculations performed in accordance with OET Bulletin 69, decreases.



Charles A. Cooper

August 20, 1997

du Treil, Lundin & Rackley, Inc.
240 North Washington Blvd., Suite 700
Sarasota, Florida 34236
941.366.2611

ATTACHMENT H

WAVE(TV)—Louisville, Kentucky

1. Technical Exhibit

DTV CHANNEL SUBSTITUTION
WAVE(TV) LOUISVILLE, KENTUCKY

WAVE(TV) on NTSC Channel 3 at Louisville, Kentucky is requesting the option of moving the allotment reference geographic coordinates of the FCC assigned DTV channel. WAVE(TV) is assigned DTV Channel 47 at the geographic coordinates of 38° 27' 23" North Latitude and 85° 25' 28" West Longitude with a maximum effective radiated power 1,000 kilowatts and an antenna radiation center height above average terrain of 555 meters. WAVE(TV) proposes to have the option of relocating to an alternate DTV allotment site located at 38° 21' 00" North Latitude, 85° 50' 57" West Longitude [WDRB(TV), Channel 41 transmitter site] with a non-directional effective radiated power of 1,000 kilowatts and an antenna height above average terrain of 391 meters.

Due to the present lack of DTV field test data, WAVE(TV) cannot adequately evaluate the predicted coverage areas from the present DTV allocation site and the proposed allocation site. Therefore, WAVE(TV) proposes to have the option of the relocating the allotment reference site.

Additionally, the required minimum separation distances, contained in Section 73.623(d) of the Commission's Rules, appear to be satisfied toward all licensed and authorized facilities at the proposed alternate WAVE(TV) DTV allotment site.

Principal Community Coverage

As the proposed DTV facility is co-located with the existing NSTC facility assigned to Louisville, WDRB(TV) on Channel 41, the principal community coverage requirement of Section 73.625(a) is clearly achieved at the proposed WAVE(TV) DTV alternate site.

Charles A. Cooper

August 20, 1997

du Treil, Lundin & Rackley, Inc.
240 North Washington Blvd., Suite 700
Sarasota, Florida 34236
941.366.2611